



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT: Chester L. Schuler et al.

SERIAL NO.: 10/072,728

FILING DATE: February 7, 2002

CONFIRMATION NO.: 2651

TITLE: Interface Device With Tactile Responsiveness

EXAMINER: Srilakshmi K. Kumar

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ART UNIT: 2629

CERTIFICATE OF MAILING

I hereby certify that this paper is being deposited with the United States Postal Service as First Class Mail in an envelope addressed to: Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on the date printed below:

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INFORMATION DISCLOSURE STATEMENT

In compliance with the duty of disclosure under 37 C.F.R. §§ 1.56, 1.97 and 1.98, applicant hereby submits this Information Disclosure Statement (IDS) including a Form PTO-1449 containing a list of references which may be material to the examination of the above-referenced application. This submission is not to be construed as a representation that a prior art search has been conducted, that additional information material to the examination of this application does not exist, or that any one or more of the listed references constitutes prior art.

The Examiner is urged to carefully consider this Information Disclosure Statement and all the listed references, and to indicate same by initialing the appropriate portion(s) of the Form PTO-1449 and forwarding an initialed copy to applicant.

Pursuant to 37 C.F.R. § 1.98(2) legible copies of prior art references other than U.S. Patents and U.S. Patent Application Publications are attached.

I

This statement is filed pursuant to **(CHECK ONE BOX)**:

☐

37 C.F.R. § 1.97(b).

This information disclosure statement is filed either:

- (1) within three months of the filing date of a national application other than a continued prosecution application under §1.53(d);
- (2) within three months of the date of entry of the national stage as set forth in 37 C.F.R. §1.491 in an international application;
- (3) before the mailing date of a first office action on the merits; **or**
- (4) before the mailing of a first office action after the filing of a Request for Continued Examination under 37 C.F.R. §1.114, **whichever event occurs last.**

Accordingly, this information disclosure statement requires no fee and no certification.

☒

37 C.F.R. § 1.97(c).

This information disclosure statement is filed **after** the period specified in 37 C.F.R. § 1.97(b), but **before** the mailing date of any of the following:

- (1) a final action under 37 C.F.R. § 1.113;
- (2) a notice of allowance under 37 C.F.R. § 1.311; **or**
- (3) an action that otherwise closes prosecution in the application.

Accordingly, this information disclosure statement requires either:

- (1) the fee specified in 37 C.F.R. § 1.17(p) for submission of an information disclosure statement under 37 C.F.R. § 1.97(c); **or**
- (2) a certification according to 37 C.F.R. § 1.97 (e)(1) or (2).

☐

37 C.F.R. § 1.97(d).

This information disclosure statement is filed **after** the period specified in 37 C.F.R. § 1.97 (c).

Accordingly, this information disclosure statement requires:

- (1) a certification in accordance with 37 C.F.R. § 1.97(e); **and**
- (2) the fee specified in 37 C.F.R. § 1.17 (p) to consider an information disclosure statement under 37 C.F.R. § 1.97(d).

If this statement crosses in the mail with an office action, or is otherwise not in the indicated category of 37 C.F.R. §1.97, it is respectfully requested that this statement be treated in the next appropriate category and made of record. **To the extent required, please treat this paper as a conditional petition for acceptance of the information disclosure statement.**

II

Fees Due (CHECK ONE BOX):

- ☐ No fee is due.
- ☒ The fee specified in 37 C.F.R. § 1.17(p) for submission of an information disclosure statement under 37 C.F.R. § 1.97(c) or 37 C.F.R. § 1.97(d) is enclosed (**\$180**).

III

Certification (CHECK ONE BOX):


- ☒ No certification is necessary.
- ☐ Pursuant to 37 C.F.R. § 1.97(e)(1), the undersigned hereby certifies:
That each item of information contained in this information disclosure statement was first cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this information disclosure statement.
- ☐ Pursuant to 37 C.F.R. § 1.97(e)(2), the undersigned hereby certifies:
No item of information contained in this information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the undersigned after making reasonable inquiry, no item of information contained in this information disclosure statement was known to any individual designated in 37 C.F.R. § 1.56(c) more than three months prior to the filing of this information disclosure statement.

IV

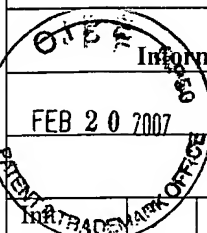
Please charge any additional required fee or credit any overpayment to our deposit account number 50-1698.

Respectfully submitted,
THELEN REID BROWN RAYSMAN & STEINER LLP

Dated: February 14, 2007


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Form PTO 1449 (Rev. 2-32)		U.S. Department of Commerce Patent and Trademark Office		Atty. Docket No. IMMR-0043E (034701-068)		Serial No. 10/072,728	
 Information Disclosure Statement by Applicant (Use several sheets if necessary)				Applicant: Chester L. Schuler et al.			
				Filed: February 7, 2002		Group: 2629	
U.S. Patent Documents							
	Document No.	Date	Name	Class	Subclass	Filing Date	
	2906179	09/29/1959	Bower				
	3263824	08/02/1966	Jones et al.				
	3304434	02/14/1967	Koster				
	3541541	11/17/1970	Englebart				
	3795150	03/05/1974	Eckhardt				
	3832895	09/03/1974	Strandh				
	3863098	01/28/1975	Mehr				
	4148014	04/03/1979	Burson				
	4216467	08/05/1980	Colston				
	4382166	05/03/1983	Kim				
	4409479	10/11/1983	Sprague et al.				
	4423428	12/27/1983	Zawabara et al.				
	4459440	07/10/1984	Wiczer				
	4473725	09/25/1984	Kim				
	4489304	12/18/1984	Hayes				
	4546347	10/08/1985	Kirsch				
	4575297	03/11/1986	Richter				
	4654648	03/31/1987	Herrington et al.				
	4689449	08/25/1987	Rosen				
	4712101	12/08/1987	Culver				
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	4771344	09/13/1988	Fallcaro et al.				
	4782327	11/01/1988	Kley et al.				
	4787051	11/22/1988	Olson				
	4794384	12/27/1988	Jackson				
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	4825157	04/25/1989	Mikan				
	4839838	06/13/1989	LeBiche et al.				
	4857881	08/15/1989	Hayes				
	4874998	10/17/1989	Hollis, Jr.				
	4878374	11/07/1989	Nelson				
	4879556	11/07/1989	Dumiel				
	4906843	03/06/1990	Jones et al.				
	4935728	06/19/1990	Kley				
Examiner				Date Considered			
Examiner: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include a copy of this form with the next communication to applicant.							

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Init.		Document No.	Date	Name	Class	Subclass	Filing Date		
		4954817	09/04/1990	Levine					
		4961138	10/02/1990	Gorniak					
		4962448	10/09/1990	DeMaio et al.					
		4983786	01/08/1991	David et al.					
		4994669	02/19/1991	Stern					
		5007085	04/09/1991	Greanias et al.					
		5027648	07/02/1991	Filleau					
		5047942	09/10/1991	Middleton et al.					
		5047952	09/10/1991	Kramer et al.					
		5086296	02/04/1992	Clark					
		5088046	02/11/1992	McMurtry et al.					
		5107719	04/28/1992	Kota					
		5128671	07/07/1992	Thomas, Jr.					
		5132672	07/21/1992	Clark					
		5138154	08/11/1992	Hotelling					
		5181181	01/19/1993	Glynn					
		5193963	03/16/1993	McAfee et al.					
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		5227594	07/13/1993	Russo					
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		5253832	10/19/1993	Bolas et al.					
		5254919	10/19/1993	Bridges et al.					
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		5264836	11/23/1993	Rubin					
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		5280265	01/18/1994	Kramer et al.					
		5293158	03/08/1994	Soma					
		5296846	03/22/1994	Ledley					
		5296871	03/22/1994	Paley					
		5298890	03/29/1994	Kanamaru et al.					
		5298918	03/29/1994	Yen-Chen et al.					
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		5313230	05/17/1994	Venolia et al.					
		5317336	05/31/1994	Hall					
		5334893	08/02/1994	Oudet et al.					
		5374942	12/20/1994	Gilligan et al.					
		5379663	01/10/1995	Hara					
		5389849	02/14/1995	Asano et al.					
		5398044	03/14/1995	Hill					
		5436640	07/25/1995	Reeves					
		5438529	08/01/1995	Rosenberg et al.					
		5451924	09/19/1995	Massimino et al.					
		5456341	10/10/1995	Garnjost et al.					
		5457479	10/10/1995	Cheng					
		5459382	10/17/1995	Jacobus et al.					
		5461711	10/24/1995	Wang et al.					
		5473235	12/05/1995	Lance et al.					
		5473344	12/05/1995	Bacon et al.					
		5524195	06/04/1996	Clanton, III et al.					
		5526480	06/11/1996	Gibson					
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		5541379	07/30/1996	Kim					
		5547383	08/20/1996	Yamaguchi					
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		5586257	12/17/1996	Perlman					
		5591082	01/07/1997	Jensen et al.					
		5592401	01/07/1997	Kramer					
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		5596347	01/21/1997	Robertson et al.					
		5627348	05/06/1997	Berkson et al.					
		5628686	05/13/1997	Svancarek et al.					
		5652603	07/29/1997	Abrams					
		5656901	08/12/1997	Kurita					
		5665946	09/09/1997	Nishijima et al					
		5676157	10/14/1997	Kramer					
		5687080	11/11/1997	Hoyt et al.					
		5689285	11/18/1997	Asher					
		5694153	12/02/1997	Aoyagi et al.					
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		5710574	01/20/1998	Jaaskelainen, Jr.					
		5712725	01/27/1998	Faltermeier et al.					
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		5731804	03/24/1998	Rosenberg					
		5736978	04/07/1998	Hasser et al.					
		5745057	04/28/1998	Sasaki et al.					
		5745715	04/28/1998	Pickover et al.					
		5749533	05/12/1998	Daniels					
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		5757358	05/26/1998	Osga					
		5760764	06/02/1998	Martinelli					
		5771037	06/23/1998	Jackson					
		5784052	07/21/1998	Keyson					
		5805165	09/08/1998	Thorne, III et al.					
		5805601	09/08/1998	Takeda et al.					
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		5816823	10/06/1998	Naimark et al.					
		5818423	10/06/1998	Pulgliese et al.					
		5821920	10/13/1998	Rosenberg et al.					
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Init.		Document No.	Date	Name	Class	Subclass	Filing Date
		5828363	10/27/1998	Yaniger et al.			
		5831596	11/03/1998	Marshall et al.			
		5835693	11/10/1998	Lynch et al.			
		5841423	11/24/1998	Carroll, Jr. et al.			
		5841428	11/24/1998	Jaeger et al.			
		5844392	12/01/1998	Peurach et al.			
		5868573	02/09/1999	Kerby et al.			
		5877748	03/02/1999	Redlich			
		5896125	04/20/1999	Niedzweicki			
		5907487	05/25/1999	Rosenberg et al.			
		5914716	06/22/1999	Rubin et al.			
		5929607	07/27/1999	Rosenberg et al.			
		5929846	07/27/1999	Rosenberg et al.			
		5930741	07/27/1999	Kramer			
		5956484	09/21/1999	Rosenberg et al.			
		5959613	09/28/1999	Rosenberg et al.			
		5977977	11/02/1999	Kajiya et al.			
		5984785	11/16/1999	Takeda et al.			
		5990860	11/23/1999	Takeuchi			
		5990875	11/23/1999	Bi et al.			
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		5999185	12/07/1999	Kato et al.			
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		6028593	02/22/2000	Rosenberg et al.			
		6046727	04/04/2000	Rosenberg et al.			
		6057828	02/02/2000	Rosenberg et al.			
		6059506	05/09/2000	Kramer			
		6061004	05/09/2000	Rosenberg			
		6078308	06/20/2000	Rosenberg et al.			
		6100874	08/08/2000	Schena et al.			
		6102803	08/15/2000	Takeda et al.			
		6131097	10/10/2000	Peurach et al.			
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		6147674	11/14/2000	Rosenberg et al.					
		6148280	11/14/2000	Kramer					
		6154198	11/28/2000	Rosenberg					
		6161126	12/12/2000	Wies et al.					
		6162190	12/19/2000	Kramer					
		6166723	12/26/2000	Schena et al.					
		6169540	01/02/2001	Rosenberg et al.					
		6191774	02/20/2001	Schena et al.					
		6215470	04/10/2001	Rosenberg et al.					
		6239784	05/29/2001	Holmes					
		6246390	06/12/2001	Rosenberg					
		6271828	08/07/2001	Rosenberg et al.					
		6300937	10/09/2001	Rosenberg					
		6323837	11/27/2001	Rosenberg					
		6326964	12/04/2001	Snyder et al.					
		6424333	07/23/2002	Tremblay et al.					
		6433771	08/13/2002	Yocum et al.					
		6486872	11/26/2002	Rosenberg et al.					
		6639581	10/28/2003	Moore et al.					
		6697748	02/24/2004	Rosenberg et al.					
		6704001	03/09/2004	Schena et al.					
		6876891	04/05/2005	Schuler et al.					
		6906700	6/14/2005	Armstrong					
		RE37374	09/19/2001	Roston et al.					
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Init.		Document No.	Date	Name	Class	Subclass	Filing Date		
		2001/0002126	05/31/2001	Rosenberg et al.					
		2001/0026266	10/04/2001	Schena et al.					
		2002/0072814	06/13/2002	Schuler et al.					
		2002/0109668	08/15/2002	Rosenberg et al.					
Foreign Documents									
								Translation	
Init.		Document No.	Date	Country	Class	Subclass	Yes	No	
		0 640 902	03/01/1995	EP					
		3-97485	04/23/1991	JP			(abstract)		
		4-131924	05/06/1992	JP			(abstract)		
		1335994	09/07/1987	SU					
		1732371	05/07/1992	SU					
		00-03319	01/20/2000	WO					
		95-20788	08/03/1995	WO					
		95-21436	08/10/1995	WO					
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Other Documents (Including Author, Title, Date, Pertinent Pages, etc.)				
		Disclosed Anonymously, "28373, Joystick with Tactile Feedback," Research Disclosure, Vol. 283, pp. 742, Nov. 1987.		
		Ansley, D., "Thimble gets in touch with reality", New Scientist, Issue 1908, pp. 19, January 15, 1994.		
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		Hayward, V. et al. "Design and Multi-Objective Optimization of a Linkage for a Haptic Interface," Advances in Robot Kinematics and Computationed Geometry, pp. 359-368, 1994.		
		Hogan, N., et al, "Haptic illusions: Experiments on human manipulation and perception of "virtual objects", Vol. 55 Cold Spring Harbor Symposia on Quantitative Biology, pp. 925-931, 1990.		
		Hon, D., "Ixion's Realistic Medical Simulations" Virtual Reality World, Vol. 2, No. 4, pp. 58-62, July/August 1994.		
		"Cursor Waldo," Designer's Corner-Useful Technology for Your Idea File, Design News, pp. 63, March 7, 1994.		
		Kelley, A., et al., "On the Development of a Force-Feedback Mouse and Its Integration into a Graphical User Interface," Symposium on Haptic Interfaces for Virtual Environment and teleoperator Systems, 1994 International Mechanical Engineering Congress and Exhibition, Chicago, IL, November 1994.		
		Kim, W., et al., "Graphics Displays for Operator Aid in Telemanipulation," Proceedings of the 1991 IEEE International Conference on Systems, Man, and Cybernetics, pp. 1059-1067, 1991.		
		Kim, W., et al, "A teleoperation training simulator with visual and kinesthetic force virtual reality," SPIE Vol. 1666 Human Vision, Visual Processing, Digital Display III, pp. 560-569, 1992.		
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Form PTO 1449 (Rev. 2-32)		U.S. Department of Commerce Patent and Trademark Office	Atty. Docket No. IMMR-0043E (034701-068)	Serial No. 10/072,728
Information Disclosure Statement by Applicant			Applicant: Chester L. Schuler et al.	
(Use several sheets if necessary)			Filed: February 7, 2002	Group: 2629
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